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METEOROLOGICAL REPORT.

Yesterday's Record at the Local Of-
fice of the Weather Bureau.Salt Lake City, Utah, Aug. 27, 1899.
Maximum temperature, 87 degrees; minimum
temperature, 65 degrees; mean tem-
perature, 76 degrees, which is 5 degrees
above the normal; accumulated deficiency
of temperature since first of month, 171
degrees; accumulated deficiency of tem-
perature since Jan. 1, 252 degrees; total
precipitation from Jan. 1 to 8 a. m., .39
inch; accumulated excess of precipitation
since first of month, .8 inch; accumu-
lated excess of precipitation since Jan. 1,
1.19 inches.

TOTALLY DEPRIVED.

The dastardly attempt to assassinate
Judge Powers and Warden Dow shows
to what depths of criminal depravity
it is possible for a human being to
descend. In the patent office of his
satanic majesty no more ingenious de-
vices for the accomplishment of a hell-
ish purpose could possibly be found.
That murder was not done is a mir-
acle, almost. Fortunately the judge was
governed by one of those inexplicable
intuitions which some men have and
occasionally follow even against their
practical judgment.But the wonder is that other lives
were not sacrificed in handling the
boxes at Eureka, on the express car
and in this city. In one of them was a
cocked revolver, which might have been
discharged by a jolt in loading or un-
loading the packages of various
weights and sizes carried by the com-
pany. Every employee who lifted
shifted and carried the explosives
around was exposed to the danger of
instant death. There is something so
damnable fiendish in such work that
it is hard to conceive of a sane man
engaging in it. Only one wretch is de-
prived enough to bear a burden of in-
fernal machines company in the black
pillory of crime, and he is the one who
deliberately plans to wreck a train and
send hundreds of unsuspecting men,
women and children to death in the
hope of plundering the dead and dying.If the death penalty is executable un-
der any circumstances it is the proper
punishment for offenses of this charac-
ter. There is no way to take care of
ingenuity and villainy so curiously and
evenly blended. It would be a menace
to any penal institution in the land and
the reclamation of a wretch so hope-
lessly degenerate is out of the question.
No effort should be spared to appre-
hend the scoundrel or scoundrels and
protect society against them and their
diabolical plots of wholesale and indi-
vidual slaughter. The murderer who
lies in ambush to plunge a knife into
his victim's heart may be actuated
by motives as base as those behind
the sender of an infernal machine, but
he is courageous enough at least to
seek the presence of the one he
would destroy. Beside the cowardly
sneak who, from a safe distance, sends
an instrument of assassination, he
towers like Mt. Whitney above the
haunted hole of Death valley.

TRICKS OF POLITICS.

Goldbugs realize that the administration
has taken an unpopular position
on other issues than the financial ques-
tion. Some of them are greatly alarmed
lest the combination of beef, bonds,
conquest, scandal, monometallism and
trust-protection may result in the un-
doing of the Hanna-McKinley aggre-
gation, now at the head of affairs. Our
local goldbug contemporary is one of
these. It is afraid that McKinley's
allies of 1896 will become disgusted with
the fraud and corruption to which they
were accessories before the fact; that
they will view the jobbery, the incom-
petency, the nepotism, the petty poli-
tics, the surrender to spoilsmen that
mark the administration of the various
departments at Washington, and con-
clude that, much as they dislike the
idea of bimetalism, there is really less
harm in it, after all, than there is in
Hannamism.One frightened goldbug of New York
pours out his fears in a communication
to the Commercial Advertiser, and asks,
"Whose fault is it to be if Bryan is
elected because of these complications
and chance of harming the existing
monetary standard is left open to
him?"The Commercial Advertiser says that,
with a free silver congress behind him,
Bryan could and undoubtedly would
establish bimetalism; but without a
free silver majority in congress, which
would be out of the question during the
first part of his administration, the
way to circumvent the plans of the sil-
verites is to legalize the gold standard
in the Republican congress next winter.
This is so important, says the New
York paper, that the paramount duty
of the party is to enact the gold stand-
ard law already agreed upon by the
party leaders, just as soon as congress
assembles. By doing this it would be
possible, says the Commercial Advertiser,
to "prevent him or his free silver
secretary of the treasury from ordering
redemption of national obligations in
silver."It says further: "The Commercial
Advertiser has been untiring in urging
the congress to pass such a law, and
hopes that it will be done in the next
session. The Republican party is
pledged to it by the platform, the president
undoubtedly will report in favor of it,
and probably the house will pass it.
Less than this cannot be done, unless
the party is to be forevermore. But this
will be useless, if all Democrats in the
senate vote against the bill and a few
recalcitrant Republicans join them. Thesilver party had a majority in the last
senate. This majority has been cut
down, and we hope it has been destroyed,
but nobody can tell."In the language of the Chicago
Times-Herald, "The free silver snake
was not killed; it was only scotched,
and the prospect is for a harder fight
than ever along the same lines that
were laid down in 1896." The Commer-
cial Advertiser calls attention to this
self-evident truth, and makes the fol-
lowing appeal to those Democrats who
helped elect McKinley three years ago,
to lend their influence to keeping him
in power until the danger passes:
"It would be a very dangerous experi-
ment," it adds, "for gold Democrats to
vote McKinley out of the presidency
and vote Bryan in, in the belief that the
Republicans in the next congress will
be able to tie his hands with legisla-
tion, against the resistance of all the
Democrats and a few Bryan Republi-
cans, and that, throughout his whole
term, he will lack the support of a ma-
jority in congress. Even if the Republi-
cans have a majority in the senate,
Stewart alone may talk a gold standard
bill to death."By telling the silver Republicans of
the west that "no one is talking silver
any more," by misrepresenting Bryan
and distorting his utterances, and by
making frantic appeals to McKinley's
allies, the advocates of the single gold
standard are trying to get a new lease
of life and a fresh hold upon the reins
of government. In this the gold press
of the east is ably seconded by the sub-
sidized press of the west.

MAKE THE EFFORT.

Utah's delegates to the grand army
encampment of the Grand Army of the
Republic will leave for Philadelphia in
a few days. They should be able to
carry with them the assurances of the
Salt Lake public that the next encamp-
ment is wanted here. But it takes more
than a mere verbal invitation to bring
to any city, however attractive or con-
venient, a body of 25,000 men from
every walk of life and every section of
the country.It will be necessary for our repre-
sentatives to make a vigorous fight against
committees from other cities. They
should be armed with authority to
guarantee, not only a most cordial wel-
come and a good time, but ample ac-
commodations for the multitude that
will expect to remain in session a week
or more, and may linger a great deal
longer under the seductive influence of
the lake and climate. To this end the
city should offer to donate the use of its
parks, the school board has already
tendered the use of its buildings, others
may be needed, the co-operation of the
railroads should be solicited and every
assurance given the committee that its
labors will be successful. It will be well
backed by the business men, the public
officials and the citizens of Salt Lake
City in general.The bringing of a Grand Army en-
campment to Utah means more than
people are apt to comprehend at the
first glance. Besides the patronage it
insures to business houses and pleas-
ure resorts in and around the city, it
will pay to entertain these honored citi-
zens who assemble yearly in some part
of the Union they fought to preserve,
for their good opinion and the good
words they are sure to say when they
return to their homes.The delegates leave this week.
Prompt action is essential to success.

LINCOLN, THE PATRIOT.

Some of the president's fool friends
who cannot distinguish between a pa-
triot and a parasite, who hold that loy-
alty consists in endorsing every mis-
take, covering up every scandal, and
defending every dangerous policy of the
administration, who claim that his im-
perial majesty, the chief executive of
this republic, can do no wrong, are ig-
norantly assailing the record of one far
greater and better and more typically
American than William McKinley.Abraham Lincoln didn't believe it
wrong, in a government of, by and for
the people, to criticize the president and
his policy while engaged in a foreign
war. He held that it was not only his
right, but his duty, to do so, when he
felt that the president was on the wrong
track or that his policy was at variance
with the traditional policy of the Amer-
ican government. Hanna's cuckoo
would call Lincoln a traitor or copper-
head if he were alive today and saw it
to oppose the imperialist drift of new
republicanism.Lincoln was a member of congress
during the progress of the Mexican war.
His whole record is one of opposi-
tion to that conflict, and his speeches
were severe arraignment of President
Polk. In one of these, delivered on the
floor of the national house of representa-
tives, on the 12th of January, 1848, he
said:Now, sir, for the purpose of obtaining
the very best evidence as to whether Tex-
as had actually carried her revolution to
the point where the claims of the present
war commenced, let the president an-
swer the interrogatories I propose, or
let him answer them in his own words,
fairly and candidly. Let him answer with
facts and not with arguments. Let him
show that such is true of the war, and
so remembering, let him answer as
Washington would answer. As a nation
which has been so long in the habit of
evading, so let him attempt no evasion—
no equivocation. And if, so answering,
he should show that the war was shed—that
it was not within an inhabited country,
nor that the same is true of the Gulf of
Port Brown—then I am with him for his
justification.But if he cannot, or will not do this—
on any pretense, or so pretense, he shall
refuse to omit it—then I shall be fully
convinced of what I more than suspect
already—that he is deeply conscious of
being in the wrong; that he feels the blood
of this war, like the blood of Abel, is cry-
ing to heaven against him; that originally
wading across a river, he will not stop
now to give my opinion concerning
—to involve the two countries in a war,
and to shed the blood of the innocent
the public gaze upon the exceeding bright-
ness of military glory—that attractive
rainbow that rises above the clouds of
that serpent's eye that charms to destroy
—he plunged into it, and has swept on
and on till disappointed in his calculation
of the ease with which Mexico might be sub-
dued, he now finds himself he knows not
where. He is bewildered, confounded
and miserably perplexed man. God grant
he may be able to show there is not some-
thing about his conscience more painful
than all his mental perplexity.While we were engaged in a war
against a foreign power, a war in which
we were justified if ever a nation was
justified in appealing to force, in a war
to avenge a massacre more merciless
and bloody than that night attack of
the Tagals, in a war to protect the
lives, liberty and property of American
settlers, Abraham Lincoln saw a dan-
ger of criminal aggression, and cried
out against the policy which caused
the blood of American heroes to flow
on foreign soil. But he was regarded
as a traitor, a copperhead or a Santa
Ana sympathizer for so doing. At leasthis subsequent career does not indicate
that the people cast him off for speak-
ing his mind and fighting the policy of
expansion.It should be remembered in this con-
nection, too, that no war in which we
have ever had part resulted more ad-
vantageously to the nation. It gave
this government a vast area of contin-
guous territory—not a thousand islands
in another hemisphere, but a border-
land over whose boundaries endless
troubles might have resulted other-
wise. It added Texas, California, Utah,
Nevada, Arizona and parts of Colorado
and New Mexico. It furnished homes
for over 5,000,000 of American citizens,
with soil, climate, government and
commercial connections that were
entirely American.Still, Abraham Lincoln opposed that
war and lost no opportunity to criticize
the policy that was the motive of
President Polk. Was he a copperhead?
When he spoke of the blood being
spilled in the war with Mexico as "the
blood of Abel crying to heaven"
against the chief executive, should Lin-
coln have been led out and shot as a
traitor to his country?Instead of being traitors or copper-
heads, men who oppose policies they
know to be wrong are acting, as was
Lincoln, up to the highest standards of
patriotic and independent American
citizenship. It is not for fawning ep-
icureans who crouch at the feet of
Mark Hanna and make their parrot
talk for imperialism to deny these
rights. Between parasites and patriots
the people will judge.The appearance of a crank like Ber-
tillon in an American court, with as-
tronomical charts and geometrical suspi-
cions would be better appreciated
even than it is in France. He would
be greeted with an outburst of hilarity
guffaws which would result in having
the courtroom cleared of all disturbers
of the peace, including the witness.Instead of sending to the war de-
partment for the files or for certified
copies of the record, the high officers of
the French army are allowed to quarrel
hour after hour at the Dreyfus court-
martial as to their contents. A strange
proceeding, as viewed from this side
of the Atlantic.After reading and rereading Presi-
dent McKinley's latest declaration of
a Philippine policy one is forced to look
upon him as a believer in Talleyrand's
idea that "language is made to conceal
rather than express thought.""Wolfish" is the word. Governor
Weiss was happy in his description of
the conduct of the political Tagal.Edward Atkinson is not getting along
with the administration he helped elect
as well as might be hoped.

ATTACK ON MAJOR YOUNG.

(Sanpete Democrat.)

Major Richard W. Young is the latest
victim of the Tribune's hate, and for
the only reason, apparently, because he
is too big a man and citizen, and is of
the opposite political and religious be-
lief from what the Tribune is. To un-
derstand the attack, one must know
that he is a soldier, a brave soldier, a
never ingressed into his political or re-
ligious professions before we lifted our
hat to him or sounded his praises for
achievements won on the battlefield.
There is a city elected to be held in
Salt Lake this fall, and it would have
been something remarkable if the "nig-
ger" in the wood pile had not showed
himself just at this time. Major Young
should be induced to accept the nomi-
nation for the mayoralty, just to give
the opposition a lesson of his strength
and popularity.

(Weber County Times.)

Coming at the time it did, that was a
brutal attack of the Tribune on Major
R. W. Young. The echo of the chorus
for the volunteers had not yet died
away, when this reprehensible at-
tempt was made to tell their chief by
the stroke of a pen, "We can't have
fathom the object, unless it were a
whiff of common, dirty politics—a far-
off smell of the coming political battle."It is incomprehensible to many Utah
people why one supposedly reputable
newspaper should devote itself to per-
sonal attacks on every citizen, and
the major, it accepts the statement of
one of the few malcontents among the
volunteers, who was put in the guard
house for some scandal, and a few
others who found military discipline
irksome, or felt hurt because of non-
promotion, and took occasion to exer-
cise their predilection for chronic dis-
content. Major Young is not the only
officer who was disliked by this class of
volunteers. Nearly all the other offi-
cers received a share of the criticism,
as officers do in all volunteer regiments,
but for an obvious reason the paper in
question selected Major Young for its
attack.No matter what the Tribune may
say, the people of the state have con-
fidence in Major Young. He is a gradu-
ate of West Point, and has received
national recognition, as well as state,
for his soldierly qualities. The same
confidence exists as regards all the of-
ficers.

A CONTEMPORARY'S VIEW.

(Sanpete Democrat.)

About a week ago the Salt Lake
Tribune posted a waver of \$2 that a
certain special correspondent of the
Salt Lake Herald was a "rake,"
and that if the Herald could prove the
correctness of the dispatch the Tribune
would pay the money to any charitable
institution to be named by the Herald
company. The Herald has submitted
its proofs, and the Tribune has accept-
ed them as correct, and editorially an-
nounced that it was now in order
that the Herald request the money to
be paid to some institution which the
Tribune is least willing to give support
for. The Herald is entitled to that much
revenge, to say the least.

It Would Seem So.

(Chicago News.)

"Hope springs eternal in the human
breast."
So the poet says; and no one can deny
that it is true. But the poet is wrong.
The pool of disappointment would run
dry.

Her Opinion.

(Harper's Bazar.)

"What did you think of Niagara Falls,
Mabel?" asked the small girl's aunt.
"What the dearest thing I ever
saw!" said Mabel.

A Tempting Target.

(Jeweler's Weekly.)

Jeweler—I think I should prefer
a diamond stud to a silver tobacco
jack. Kindie Bill—Mabel, he's preached
in once in a while that he'd get a bullet
in it from every member of the congre-
gation.... THE HERALD'S ...
Home Study Circle.(Copyright, 1899, by Seymour Eaton.)
Directed by Prof. Seymour Eaton.

VACATION STUDIES

FOR YOUNG NATURALISTS.

VII. FROGS, TOADS AND SAL-
AMANDERS.

BY FREDERIC P. GORHAM, A. M.

Dame nature is fond of giving object
lessons. When she makes the tadpole
change into the frog she is showing us
today just what happened ages ago,
when the world was young. In this
simple way she is telling us that once
upon a time when all bickoned
animals dwelling on the earth were
fishlike forms, aquatic in habit, breath-
ing by means of gills, as do the fish
today. No land forms had appeared.
Great forest of fern grew luxuriantly
on the land—forests that later
formed vast coal deposits—but therewere no air-breathing vertebrates in-
habiting them. On the other hand, the
sea was filled with fish and fishlike
forms. There was a great struggle for
existence; anything that gave the least
advantage to one form over another
was immediately seized upon and made
use of. Then it was that the first tad-
pole learned to leave the crowded
water, and to breathe the fresh air of
the land. What a change was that!What advantage this animal
had over his fellows! The land,
with its verdant growth, was open to
a variety of forms. The evolution of
land animals was then possible, andthe results of that evolution we see in
the innumerable forms of vertebrate
life of the present day.So the tadpole is a sort of "missing
link" in development—a form connect-
ing the fish with the higher and more
complex forms of the land. And each
spring as countless tadpoles change into
frogs and toads and salamanders
nature is but going over again that
very important step which she has
developed that the transition from aquatic
to aerial respiration which marked one
of the most momentous epochs in the
evolution of animal life.Geologists have been able to learn
something of these ancestors of all air-
breathing vertebrates from their fossil
remains. They were curious fellows.
Nothing like them exists today. They
resembled more perhaps the salamander
than the frog. They possessed short limbs—in-
fact, they were the first of the back-
boned animals to change fins for limbs;
they had long tails and probably athird eye in the middle of the fore-
head. In size they varied from a few
inches to more than eight feet in
length. Some of them were so highly
developed that the remains were at
one time taken for those of man him-
self, and they masqueraded under the
title of "homo diluvii testis"—the man
who survived the deluge.The name labyrinthodont has been
given to these early air-breathers be-
cause of the peculiar formation of their
teeth, which resembled a labyrinth
when examined in cross section.As the ages went on development
progressed, and some of these soft-
bodied, labyrinthodonts gradually be-
came possessed of armor in the form of
plates and scales, and claws developed
from their fleshy fingers. These armored
forms were the first reptiles, ancestors
of the lizards, snakes and turtles of
today. Those of the family which had
not acquired armor soon lost their su-
premacies, yielded it to their more fa-vored relatives. As the reptiles rose
to the scale, the early labyrinthodonts
proper were driven to the wall.
The geological record tells us that the
labyrinthodonts soon passed, entirely
from the theatre of life, and that a few
insignificant forms which took refuge
beneath stones, within tree trunks or
wherever they could find protection. It is this remnant
of the labyrinthodonts that we find to-
day by the frogs, toads and sala-
manders, insignificant indeed com-
pared with their ancestors that once
dominated the earth.With this glance at the family tree
of our humble friends perhaps we shallconsider them with greater respect be-
cause of their honorable ancestry, and
because they preserve for us the rec-
ord of that important step in the evolu-
tion of life, the transition from aquatic
to land forms.In this transition the name
amphibia (amphi, both, and bios, life)
has been given to the great class of
the animal kingdom to which the frogs,
toads, salamanders and extinct lab-
yrinthodonts belong. They lead a two-
fold life, first aquatic, then aerial. The
group includes all vertebrate animals
with soft bodies, without scales or
claws, breathing in youth by gills and
later by lungs. It is intermediate, as
we have seen, between the fishes on
the one hand and on the other the scaly
skinned reptiles that never breathe bymeans of gills. It may be divided into
several "orders," as follows: (1) The
amphibia, which includes the frogs and
toads, in which the tail is absorbed be-
fore adult life is reached. (2) The
urodela, the newts or salamanders, in
which the tail persists throughout life.
(3) The wormlike, limbless cecilia. (4)
The extinct labyrinthodonts.At the present time not a single am-
phibian lives in salt water. Almost all
of them, however, live near or in fresh
water.The breeding habit of all members of
the group are remarkably interesting.
The eggs of the frog are common ob-
jects in every pond in early spring.
They are deposited in large globular
masses of jelly, from four to six inches
in diameter, and are usually attached
to rocks or twigs. Each mass of jelly
contains many eggs. If we bring one
of these egg masses home and place
them in a jar of water, or better, in an
aquarium, where we can watch the
eggs develop, we shall see a most in-
teresting change.When first deposited the egg is spher-
ical, with a black and white hemi-
sphere. A few hours after deposition
each egg has changed into a spherical
mass of small spheres, resembling
somewhat a mulberry. Then follow
many changes, some of which are out-
lined in the figures above, and all of
which can be observed with the naked
eye or with a good reading glass. At
the end of from twelve to fifteen days
the mature tadpole is formed, with
head, trunk and tail. Of course, the
temperature has a great deal to do withthe rapidity of development. Cold re-
tards it, warmth hastens it. The water
must be free about the eggs, but if the
eggs themselves are not frozen develop-
ment again proceeds with the return
of warm weather. The mass of jelly acts
very much like the glass of a green-
house—heat rays once entering it are
not allowed to escape, and consequently
the temperature of the eggs within
the jelly is warmer than the surround-
ing water, and development goes on
though the water in early spring is very
cold.When first hatched the young tadpole
has no mouth. In a few days, however,
the mouth appears, and it begins to
feed hungrily on water weeds or de-
caying vegetable matter. The tadpole
grows larger and stronger. After a
time that varies considerably for dif-
ferent species, limbs bud forth. The
forward pair, hidden by the gill cov-
ers, do not become visible till some
time after the hind limbs have ac-
quired considerable size. With the in-
crease in the limbs there is a corre-
sponding decrease in the size of the
tail. At the time the limbs are fully
functional and the frog is ready to
crawl out upon land the tail has nearly
disappeared. At the same time that
these external changes have been tak-
ing place, internal ones have also oc-
curred. The intestine, once long and
coiled and visible through the thin
skin of the tadpole, has not increased
proportionately with the body, and now
is comparatively short and adapted for
animal rather than vegetable food.It is a question how long it takes
some of our frogs to develop from the
egg to the adult. Probably the tad-
pole age of some forms extends over
two or three summers. More careful
observations are required in regard to
this point. In the wood frog (Rana
sylvatica), however, it has been shown
that but one season is required for its
complete metamorphosis. In the case
of one of the few insignificant forms
which took refuge beneath stones, with-
in tree trunks or wherever they could
find protection. It is this remnant
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sphere. A few hours after deposition
each egg has changed into a spherical
mass of small spheres, resembling
somewhat a mulberry. Then follow
many changes, some of which are out-
lined in the figures above, and all of
which can be observed with the naked
eye or with a good reading glass. At
the end of from twelve to fifteen days
the mature tadpole is formed, with
head, trunk and tail. Of course, the
temperature has a great deal to do with

Development of the Frog Tadpole.

water ponds, swamps or marshes. Even
these adults which have no trace of
gills are fond of water. Some forms
have become arboreal in habit, as the
tree toad, while others are subterra-
nean, as the cecilians and certain
toads.The breeding habit of all members of
the group are remarkably interesting.
The eggs of the frog are common ob-
jects in every pond in early spring.
They are deposited in large globular
masses of jelly, from four to six inches
in diameter, and are usually attached
to rocks or twigs. Each mass of jelly
contains many eggs. If we bring one
of these egg masses home and place
them in a jar of water, or better, in an
aquarium, where we can watch the
eggs develop, we shall see a most in-
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eye or with a good reading glass. At
the end of from twelve to fifteen days
the mature tadpole is formed, with
head, trunk and tail. Of course, the
temperature has a great deal to do withthe rapidity of development. Cold re-
tards it, warmth hastens it. The water
must be free about the eggs, but if the
eggs themselves are not frozen develop-
ment again proceeds with the return
of warm weather. The mass of jelly acts
very much like the glass of a green-
house—heat rays once entering it are
not allowed to escape, and consequently
the temperature of the eggs within
the jelly is warmer than the surround-
ing water, and development goes on
though the water in early spring is very
cold.When first hatched the young tadpole
has no mouth. In a few days, however,
the mouth appears, and it begins to
feed hungrily on water weeds or de-
caying vegetable matter. The tadpole
grows larger and stronger. After a
time that varies considerably for dif-
ferent species, limbs bud forth. The
forward pair, hidden by the gill cov-
ers, do not become visible till some
time after the hind limbs have ac-
quired considerable size. With the in-
crease in the limbs there is a corre-
sponding decrease in the size of the
tail. At the time the limbs are fully
functional and the frog is ready to
crawl out upon land the tail has nearly
disappeared. At the same time that
these external changes have been tak-
ing place, internal ones have also oc-
curred. The intestine, once long and
coiled and visible through the thin
skin of the tadpole, has not increased
proportionately with the body, and now
is comparatively short and adapted for
animal rather than vegetable food.It is a question how long it takes
some of our frogs to develop from the
egg to the adult. Probably the tad-
pole age of some forms extends over
two or three summers. More careful
observations are required in regard to
this point. In the wood frog (Rana
sylvatica), however, it has been shown
that but one season is required for its
complete metamorphosis. In the case
of one of the few insignificant forms
which took refuge beneath stones, with-
in tree trunks or wherever they could
find protection. It is this remnant
of the labyrinthodonts that we find to-<